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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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## TIN IN JULY 1997

Domestic consumption of primary tin in July was estimated by the U.S. Geological Survey to be at about the same level as in June 1997 and in July 1996.

The *Platt's Metals Week* composite price for tin in July was \$3.70 per pound; slightly lower than in June 1997 and 11% lower than in July 1996. The tin price has been sliding lower fairly steadily over the past 2 years. Industry analysts generally ascribe this decline to increasing production of tin metal from some countries, such as China, Indonesia, and Peru.

Management at the Novosibirsk tin plant, in the West Siberia section of Russia, has presented a new financial plan at the firm's annual shareholders meeting. The plan projected a profit this year and called for substantial cost reductions in 1997 and 1998. The plan would make the company self-sufficient in energy and entailed signing a contract with the electrical engineering firm, Asea Brown Boveri, for the installation of a gas turbine. Tin production at the plant was estimated to be 12,000 metric tons of refined tin in 1996. Tin recovery rates increased from 93% to 97% in the past year. But, Novosibirsk faces high transport and power costs. Given the relatively low price of tin on the world market, these high costs have meant that the firm has had to export its products at unprofitable levels in order to keep its production cycle active. It is understood that one-half of Novosibirsk's production is exported. Reportedly, the company planned to begin production of wire solder in addition to its present production of tin solders in ingot form (CRU International, 1997a).

The planned sale of the Bolivian Government's tin properties has been beset by problems and delays since the idea was conceived 2 years ago. The properties include the Vinto tin smelter and its associated Colquiri and Huanuni tin mines, all owned by COMIBOL, the Government-owned organization. The Government wishes to semi-privatize all three properties by selling a 50% interest in them to private owners. Earlier this year, the Government pre-qualified three potential bidders, Glencore International, Renison Goldfields Consolidated, and Paranapanema, but all three reportedly failed to submit bids by

the June deadline. Reportedly, a new coalition Government will relaunch the auction process in September. With the continuing delays in the sales, Vinto is believed to be in a deteriorating financial condition. Its situation is aggravated by the fact that neighboring Peru will soon no longer require a tolling contract with Vinto as production capability at its Minsur tin smelter is augmented (CRU International, 1997d).

Pan American Silver Corp. (Canada) announced that it had uncovered a major new tin resource at the Maragua prospect in Bolivia. Reportedly, the prospect has a geology similar to that of the Cerro-Rico silver-tin mine at Potosí. Exploration was carried out in two separate zones, the Chipas and the Foster zones. The Chipas is a bulk tonnage silver target at a small silver mine, while the Foster, about 3 miles away, is both a large and intense alteration zone. A number of small tin workings are located in this area, and it is the focus of the exploratory program. The second phase of the exploration program is expected to commence later this year (CRU International, 1997b).

In Turkey, the Government-owned Eregli Iron and Steel Works announced a tin-plate expansion. NKK Corp., Marubeni Corp., and Mitsubishi Electric Corp. (all Japan-based) have won a contract to supply an electrolytic tinning line at the Erdemir plant. The full turnkey order, worth about \$90 million, includes a 250,000-ton-per-year electrolytic tinning/tin-free-steel combination line, a 300,000-ton-per-year electrolytic cleaning line, and a 100,000-ton-per-year shearing line. These facilities are expected to start production near the end of 1999 and will probably replace an existing line of 100,000-ton-per-year capacity. Erdemir officials are reportedly also considering modernizing this older line, which would increase tin-plate capacity to 350,000 tons per year (CRU International, 1997c).

### Update:

On September 19, 1997, the *Platt's Metals Week* composite price for tin was \$3.78 per pound.

## References Cited

- CRU International, 1997a, Tin—Industry News—Financial restructuring at Novosibirsk: CRU Monitor, August [unpaginated].
- 1997b, Tin—Industry News—Major tin find in Bolivia: CRU Monitor, August, [unpaginated].
- 1997c, Tin—Industry News—New tinplate lines for Turkey and Korea: CRU Monitor, August, [unpaginated].
- 1997d, Tin—Industry News—Vinto sale to speed ahead: CRU Monitor, August, [unpaginated].

TABLE 1  
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	1997			
	1996	June	July	January- July
Production, secondary e/ 2/	11,000	900	900	6,300
Consumption:				
Primary	36,500	3,190	3,120	22,200
Secondary	8,180	889	906	6,270
Imports for consumption, metal	30,200	3,780	NA	NA
Exports, metal	4,780	475	NA	NA
Stocks at end of period	11,800 r/	5,180 r/	5,280	XX
Prices (average cents per pound): 3/				
Metals Week composite 4/	412.43	377.81	370.10	XX
Metals Week New York dealer	288.10	260.83	255.67	XX
London, standard grade, cash	279.00	252.00	247.00	XX
Kuala Lumpur	275.19	249.72	243.18	XX

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices.

2/ Comprises tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

3/ From Platt's Metals Week.

4/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed charges, finance charges, and a risk factor. It normally is substantially higher than other tin prices.

TABLE 2  
METALS WEEK COMPOSITE PRICE 1/

(Cents per pound)

Period	High	Low	Average
1996 (annual)	436.25	388.49	412.43
1996:			
July	423.04	408.27	417.03
August	411.84	407.75	409.11
September	413.10	402.69	408.04
October	404.38	396.12	400.25
November	409.57	392.40	401.00
December	405.37	388.49	394.76
1997:			
January	404.19	387.89	396.17
February	403.46	390.40	395.64
March	401.81	389.32	395.64
April	393.82	380.00	386.55
May	393.67	378.72	386.59
June	384.93	374.20	377.81
July	375.61	362.36	370.10

1/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed charges, finance charges, and a risk factor. It normally is substantially higher than other tin prices.

Source: Platt's Metals Week.

TABLE 3  
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments 2/
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
1996	177,000	1,550,000	9,450	6.1	2,490,000
1997:					
January	15,900	140,000	853	6.1	204,000
February	13,600	138,000	775	5.6	183,000
March	12,700	144,000	676	4.7	205,000
April	13,800	147,000	776	5.3	210,000
May	13,600	147,000	704	4.8	213,000
June	12,800 r/	137,000 r/	782	5.7 r/	218,000
July	12,900	143,000	741	5.2	NA

r/ Revised. NA Not available.

1/ Data are rounded to three significant digits.

2/ Shipments data from American Iron and Steel Institute monthly publication AIS10.

TABLE 4  
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	1997			January- June
	1996	May	June	
Imports:				
Metal (unwrought tin):				
Bolivia	6,290	467	677	2,650
Brazil	9,460	600	460	4,240
Chile	407	--	203	464
China	2,760	179	635	2,030
India	898	160	--	1,080
Indonesia	7,550	618	726	3,780
Malaysia	965	30	519	994
Peru	481	589	446	3,540
Russia	435	15	67	480
Other	922	12	48	435
Total	30,200	2,670	3,780	19,700
Other (gross weight):				
Alloys	11,800	323	105	3,040
Bars and rods	695	71	71	382
Foil, tubes, and pipes	(2/)	--	(2/)	(2/)
Plates, sheets, and strip	641	12	7	54
Waste and scrap	6,740	96	120	1,070
Miscellaneous	1,360	112	113	637
Total	21,300	614	416	5,180
Exports (metal)	4,780	400	475	2,450

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5  
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

Product	1997							January- July total
	1996	June			July			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	W	29	--	29	29	--	29	229
Babbitt	851	20	W	20	18	W	18	133
Bar tin and anodes	1,150	8	--	8	8	--	8	W
Bronze and brass	2,760	93	93	186	40	100	140	1,110
Chemicals	7,520	631 r/	W	631 r/	618	W	618	4,490
Collapsible tubes and foil	240	25	--	25	14	--	14	165
Solder	15,600	487	W	487	535	W	535	3,580
Tinning	2,030	136 r/	--	136 r/	134	--	134	945
Tinplate 3/	9,350	782	--	782	741	--	741	5,330
Tin powder	573	W	W	W	W	W	W	192
White metal 4/	1,340	W	W	W	W	W	W	W
Other	3,230	80	296	376	80	306	386	2,460
Total reported	44,700	2,290 r/	389	2,680 r/	2,220	406	2,620	18,600
Estimated undistributed consumption 5/	--	900	500	1,400	900	500	1,400	9,800
Total	44,700	3,190 r/	889	4,080 r/	3,120	906	4,020	28,400

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includesterne metal.

3/ Includes secondary pig tin and tin acquired in chemicals.

4/ Includes pewter, britannia metal, and jewelers' metal.

5/ Estimated consumption of plants reporting on an annual basis.

TABLE 6  
DEFENSE LOGISTICS AGENCY  
TIN STOCKPILE DISPOSALS 1/

(Metric tons)

Period	Monthly disposals 2/
1996:	
July	1,180
August	1,370
September	2,300
October	--
November	210
December	200
Year total	6,670
1997:	
January	215
February	200
March	115
April	60
May	200
June	60
July	210
Total	1,060

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ These disposals represent only the daily, spot sales program. They do not include the long-term dealer contract sales program.

Source: Defense Logistics Agency.